UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,352	02/16/2001	Joerg Heuer	1454.1012	2838

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EXAMINER
CHEN, CHONGSHAN

ART UNIT	PAPER NUMBER
2172	12

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/784,352	HEUER, JOERG
Office Action Summary	Examiner	Art Unit
	Chongshan Chen	2172

-- The MAILING DATE of this communication appears on the cov r sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2004*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22,34,36 and 38-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,34,36 and 38-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on 16 December 2004 have been fully considered but they

are not persuasive.

        As per applicant's arguments regarding "A standard structure is not disclosed in

Machihara" have been considered but are not persuasive. As set forth on lines 25-28 of page 3 of

the specification, in the present application descriptors such as "catalog number," "data," ... are

defined as standard descriptors, typically in string format, and <u>are known on both the query side</u>

<u>and database side</u> for a standard structure. The information retrieval system of Machihara allows

the user to retrieve desired information from a plurality of storage locations and database systems

by simply specifying retrieval content and retrieval conditions using words familiar to the user,

without having to know the names for the relevant database or their system structures or to

interact with the meta-information platform (Machihara, col. 3, lines 26-32). The query in the

Machihara uses words familiar to the user, which are known on both the query side and database

side. Clearly, these query words/descriptors used by the user are the standard structure.

Claim Objections

2.   Claim 3 is objected to because of the following informalities: it is unclear to the

examiner whether the applicant means "and" or "or" for the limitation "and/or", therefore, the

examiner interprets the "and/or" term as or. Appropriate correction for all claims with "and/or"

is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-22 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Machihara et al. ("Machihara", 6,233,578).

As per claim 1, Machihara discloses a method for querying a database with database

contents with a database structure comprising:

placing a query in a query structure that differs from the database structure and a

reference logic (Machihara, col. 3, lines 26-62) is at least one of:

at least partially transmitted together with the query; and is at least partially present in the

database (Machihara, col. 3, lines 26-62),

wherein the reference logic provides a link between the query structure and the database

structure (Machihara, Abstract, col. 3, lines 26-62, col. 5, lines 18-20).

Machihara does not explicitly disclose a standard structure. However, as set forth on

lines 25-28 of page 3 of the specification, in the present application descriptors such as "catalog

number," "data," ... are defined as standard descriptors, typically in string format, and are known

on both the query side and database side for a standard structure. The information retrieval

system of Machihara allows the user to retrieve desired information from a plurality of storage

locations and database systems by simply specifying retrieval content and retrieval conditions

using words familiar to the user, without having to know the names for the relevant database or

their system structures or to interact with the meta-information platform (Machihara, col. 3, lines

26-32). The query in the Machihara uses words familiar to the user, which are known on both

the query side and database side. It is obvious these query words/descriptors used by the user are

the standard structure and links the query structure and the database structure. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

provide the standard structure in the method of Machihara in order to link the query structure and

the database structure.

As per claim 2, Machihara teaches all the claimed subject matters as discussed in claim 1,

and further discloses the reference logic is stored in the database (Machihara, col. 3, lines 33-62).

As per claim 3, Machihara teaches all the claimed subject matters as discussed in claim 1,

and further discloses the standard structure is described by standard descriptors, and the query

structure and the database structure are described by these standard descriptors and/or more

special descriptors, wherein these more special descriptors reference the standard descriptors via

the reference logic (Machihara, col. 3, lines 26-62, col. 5, lines 29-45, col. 6, lines 17-62).

As per claim 4, Machihara teaches all the claimed subject matters as discussed in claim 3,

and further discloses standard descriptors present in the query structure are compared with the

standard descriptors of the database, wherein identical standard descriptors are evaluated for the

query (Machihara, col. 10, line 52 - col. 11, line 65).

As per claim 5, Machihara teaches all the claimed subject matters as discussed in claim 3,

and further discloses the special descriptors present in the query structure are compared with the

special descriptors of the database, wherein identical special descriptors are evaluated for the

query (Machihara, col. 10, line 52 - col. 11, line 65).

As per claim 6, Machihara teaches all the claimed subject matters as discussed in claim 5,

and further discloses dissimilar special descriptors are reviewed to determine whether a

computation logic is present in the database, so that a respective special descriptor of the

database structure can be computed directly from the corresponding special descriptor of the

query structure by means of the computation logic (Machihara, Fig. 2 & 3, col. 10, line 52 - col.

11, line 65).

As per claim 7, Machihara teaches all the claimed subject matters as discussed in claim 6,

and further discloses the computation logic is stored in the database (Machihara, Fig. 2 & 3).

As per claim 8, Machihara teaches all the claimed subject matters as discussed in claim 7,

and further discloses for dissimilar special descriptors for which no computation logic is present,

a review is made to determine whether a reference logic to standard descriptors is at least

partially present in the database (Machihara, Fig. 1-3, col. 10, line 52 - col. 11, line 65).

As per claim 9, Machihara teaches all the claimed subject matters as discussed in claim 7,

and further discloses for dissimilar special descriptors for which no computation logic and/or no

reference logic is present, a review is made to determine whether the reference logic was

transmitted together with the query (Machihara, Fig. 1-3, line 52 - col. 11, line 65).

As per claim 10, Machihara teaches all the claimed subject matters as discussed in claim

7, and further discloses atomic elements defining the information and/or link of a special

descriptor are used as the computation logic (Machihara, Fig. 1-3, line 52 - col. 11, line 65).

As per claim 11, Machihara teaches all the claimed subject matters as discussed in claim 10, and further discloses the atomic elements used are semantic, physical and linking atomic elements to define the semantic meaning, the physical memory structure, and the link between memory structure and semantics (Machihara, Fig. 1-3, line 52 - col. 11, line 65).

Claims 12-22 are rejected on grounds corresponding to the reasons given above for claims 1-11.

Claims 39 and 40 are rejected on grounds corresponding to the reasons given above for claims 1-3.

5.   Claims 34, 36, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kappenberger et al. ("Kappenberger", 6,345,269).

As per claim 34, Kappenberger teaches a method of querying a plurality of databases, comprising:

submitting a query in an original query structure to a plurality of databases (Kappenberger, Fig. 3, col. 2, lines 61-67); and

separately revising the original query structure at each of the databases, to produce query structures searchable within the respective databases (Kappenberger, col. 2, lines 61-67, col. 3, lines 47-56),

wherein the original query structure is revised in a decentralized fashion, without middleware (Kappenberger, col. 1, lines 60-63),

wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the

query so that the reference logic provides a link between the original query structure and the database structure (Kappenberger, col. 2, lines 61-67, col. 3, lines 47-56).

Kappenberger does not explicitly disclose a standard structure. However, as set forth on lines 25-28 of page 3 of the specification, in the present application descriptors such as "catalog number," "data," ... are defined as standard descriptors, typically in string format, and are known on both the query side and database side for a standard structure. The information retrieval system of Kappenberger allows the user to retrieve desired information from database systems by simply specifying retrieval content and retrieval conditions using words familiar to the user, without having to know the specific names for the relevant database (Kappenberger, col. line 61 – col. 4, line 56). It is obvious these query descriptors used by the user are the standard structure and links the query structure and the database structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the standard structure in the method of Kappenberger in order to link the query structure and the database structure.

As per claim 36, Kappenberger teaches a method of querying a plurality of databases, comprising:

submitting a query to a plurality of databases the query containing information fields not contained in all of the databases (Kappenberger, Fig. 3, col. 1, lines 60-63, col. 2, lines 61-67); and

separately searching for the query at the plurality of databases, each database using a reference logic at the database to infer a relationship between fields in the database and fields in the query not contained in the database (Kappenberger, Fig. 3, col. 3, lines 47-56),

wherein the original query structure is revised in a decentralized fashion, without

middleware (Kappenberger, col. 1, lines 60-63),

wherein the special descriptors present in the query structure are compared with the

special descriptors of the database, wherein identical special descriptors are evaluated for the

query so that the reference logic provides a link between the original query structure and the

database structure (Kappenberger, col. 2, lines 61-67, col. 3, lines 47-56).

Kappenberger does not explicitly disclose a standard structure. However, as set forth on

lines 25-28 of page 3 of the specification, in the present application descriptors such as "catalog

number," "data," … are defined as standard descriptors, typically in string format, and are known

on both the query side and database side for a standard structure. The information retrieval

system of Kappenberger allows the user to retrieve desired information from database systems

by simply specifying retrieval content and retrieval conditions using words familiar to the user,

without having to know the specific names for the relevant database (Kappenberger, col. line 61

– col. 4, line 56). It is obvious these query descriptors used by the user are the standard structure

and links the query structure and the database structure. Therefore, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to provide the standard

structure in the method of Kappenberger in order to link the query structure and the database

structure.

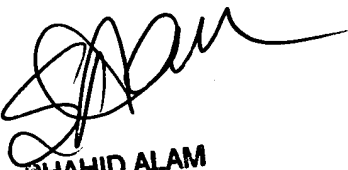Claim 38 is rejected on grounds corresponding to the reasons given above for claim 34.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 20, 2004

SHAHID ALAM
PRIMARY EXAMINER